**Patent claims**

1. A web-guiding device comprising at least one guide element (10) for non-contact web guidance in a machine used for producing and/or treating a material web (1), in particular a paper or board web, characterized in that the guide element (10) has a guide surface (12) which is at least partly composed of an air-permeable porous material (14) to which compressed air is applied, in order via the air (16) flowing through this porous material (14) to form an air cushion (18) between the guide surface (12) and the moving material web (1), and in that the guide surface (12) is divided along the direction of movement (L) of the material web (1) into at least one web transition zone (2, 4) and one web-guiding zone (3), which are designed for a different air throughput.

2. The web-guiding device as claimed in claim 1, characterized in that the at least one web transition zone (2, 4) is designed for a higher air throughput than the web-guiding zone (3).

3. The web-guiding device as claimed in one of the preceding claims, characterized in that the web transition zone is a web run-on zone (2) or a web run-off zone (4).

4. The web-guiding device as claimed in either of claims 1 and 2, characterized in that the guide surface (12) has two web transition zones, namely a web run-on zone (2) and a web run-off zone (4), between which with respect to the direction of movement (L) of the material web (1) the web-guiding zone (3) is arranged.

5. The web-guiding device as claimed in claim 4, characterized in that the web run-on zone (2) and

the web run-off zone (4) are designed for a different air throughput.

6. The web-guiding device as claimed in one of the preceding claims, characterized in that the porosity of the at least one web transition zone (2, 4) and the porosity of the web-guiding zone (3) are different.

7. The web-guiding device as claimed in claim 6, characterized in that the porosity of the at least one web transition zone (2, 4) is higher than the porosity of the web-guiding zone (3), in particular by a factor of at least 1.5, preferably by a factor of at least 2.

8. The web-guiding device as claimed in one of the preceding claims, characterized in that the at least one web transition zone (2, 4) and the web-guiding zone (3) can have compressed air applied to them at the same pressure.

9. The web-guiding device as claimed in one of claims 1 to 7, characterized in that the at least one web transition zone (2, 4) and the web-guiding zone (3) can have compressed air applied to them at different pressure.

10. The web-guiding device as claimed in claim 9, characterized in that the pressure difference is at least 2 bar, in particular at least 4 bar.

11. The web-guiding device as claimed in either of claims 9 and 10, characterized in that the at least one web transition zone (2, 4) can have compressed air applied to it at a higher pressure than the web-guiding zone (3).

12. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide surface (10) is curved and in that the at least one web transition zone (2, 4) extends along the direction of movement (L) of the material web (1) - with respect to the radius of curvature of the guide surface - by a segment angle of at least +/-5°, preferably between +/-10° and +/-20°, about the geometric point at which the material web (1) runs on (5) and/or off (6) the guide surface (12).

13. The web-guiding device as claimed in claim 12, characterized in that the at least one web transition zone (2, 4) extends by an asymmetric segment angle about the geometric point at which the material web (1) runs on (5) or off (6) the guide surface (12).

14. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide element (10) comprises at least one pressure chamber (20) via which compressed air can be applied to the porous material (14).

15. The web-guiding device as claimed in claim 14, characterized in that the porous material (14) is applied at least partly to a carrier (24) containing the pressure chamber (20) and provided with air passage openings (22).

16. The web-guiding device as claimed in claim 14 or 15, characterized in that the porous material (14) forms at least part of the pressure chamber wall.

17. The web-guiding device as claimed in one of the preceding claims, characterized in that the pressure in the interior of the guide element (10) is higher than 0.5 bar and preferably higher than 1 bar.

18. The web-guiding device as claimed in one of the preceding claims, characterized in that the specific volume flow in the porous material (14) is between 10 and 5000 $Nm^3/h \cdot m^2$.

19. The web-guiding device as claimed in one of the preceding claims, characterized in that the pore spacing of the air-permeable porous material (14) is less than 1 mm.

20. The web-guiding device as claimed in one of the preceding claims, characterized in that the average size of the pores of the porous material (14) is less than 0.2 mm and preferably less than 0.1 mm.

21. The web-guiding device as claimed in one of the preceding claims, characterized in that the pressure loss from the side facing away from the moving material web (1) toward the side of the porous material (14) facing the material web (1) is greater than 0.2 bar and preferably greater than 0.8 bar.

22. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide element (10) is designed as a roll.

23. The web-guiding device as claimed in claim 22, characterized in that the guide element (10) is designed as a stationary or nonrotating roll.

24. The web-guiding device as claimed in claim 23, characterized in that the air cushion (18) is produced only on part of the roll circumference.

25. The web-guiding device as claimed in claim 22, characterized in that the guide element (10) is designed as a rotating, preferably driven, roll.

26. The web-guiding device as claimed in one of claims 1 to 21, characterized in that the guide element (10) is designed as a segment of a curve.

27. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide element (10) or its guide surface (12) has a course curved in the transverse direction.

28. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide surface is also subdivided transversely with respect to the direction of movement (L) of the material web (1) into a plurality of zones, which are designed for a different air throughput.

29. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide element (10) is assembled from a plurality of segments (20', 20'') along or transversely with respect to the direction of movement (L) of the material web (1).

30. The web-guiding device as claimed in one of the preceding claims, characterized in that the guide surface (12) of the guide element (10) is formed by at least two layers in each case consisting at least partly of air-permeable porous material (14) and having preferably different properties.

31. The web-guiding device as claimed in one of the preceding claims, characterized in that the surface of the guide element (10) facing the material web (1) is sintered.

32. The web-guiding device as claimed in one of the preceding claims, characterized in that the surface of the guide element (10) facing the material web (1) consists of ceramic material.

33. A machine for the production and/or treatment of a material web (28), in particular a paper or board web, comprising at least one web-guiding device as claimed in one of the preceding claims.

34. The machine as claimed in claim 33, characterized in that the guide element (10) is wrapped around only by the material web (1).

35. The machine as claimed in claim 33, characterized in that, in addition to the material web (1), the guide element (10) is wrapped around by at least one moving belt, in particular a fabric belt.